

## THE MAX JAKOB MEMORIAL AWARD

The Max Jakob Memorial Award is bestowed in recognition of eminent achievement of distinguished service in the area of Heat Transfer. Made annually, without regard to society affiliation or nationality, the Award consists of a bronze plaque, an honorarium and an engrossed certificate.

The Award was established in 1961 by the ASME Heat Transfer Division in honor of Max Jakob, pioneer in the science of heat transmission, to commemorate his outstanding contributions as a research worker, educator and author. In 1962, AIChE joined in the Award which is administered by a Board of seven, three from each Society and the past-chairman.

The 1988 Award is supported by the generosity of the Hemisphere Publishing Corp., New York, N.Y.

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### MAX JAKOB 1879-1955

Scientist, engineer, educator—Max Jakob belongs to that group of remarkable individuals whose talents and achievements earned German science a position of eminence in the latter part of the nineteenth century and the early part of this century. Although his accomplishments in his native country had already given him worldwide recognition, they were followed by a second distinguished career in the United States.

Max Jakob was born on July 20, 1879, in Ludwigshaven, Germany. After completing the gymnasium, he attended the Technische Hochschule München where he received an Electrical Engineer degree in 1902, a Diploma Ingenieur in Applied Physics degree in 1903, and the degree of Doctor Ingenieur in 1904.

In 1910 he entered a career of 25 years at the Physikalisch-Technische Reichsanstalt, during which he founded and directed the applied thermodynamics, heat transfer, and fluid flow laboratories.

He wrote over 200 technical papers and was a prolific source of critical reviews, articles, and discussions. When he left Germany in 1936 for socio-political reasons, he had great stature as a scientist-engineer.

After a one-year lecture tour sponsored by ASME, Dr. Jakob became Research Professor of Mechanical Engineering at the Illinois Institute of Technology and Consultant in Heat Research at the Armour Research Foundation. In 1942 he founded and became the first director of IIT's Heat Transfer Laboratory.

He was active in research, teaching, consulting, and writing and became one of America's educational and scientific leaders. His books, an elementary textbook and a two volume treatise on Heat Transfer, have had a profound influence on education and research. His formal honors included an Honorary Degree of Doctor of Engineering from Purdue University in 1950, and the Worcester Reed Warner Medal of ASME in 1952.

His colleagues and his students loved and admired him for his warm personality, subtle wit, and rare humility of spirit. When he died on January 4, 1955, many were aware that they had lost a great friend and that mankind had lost one of its truly outstanding members.



## THE 1988 MAX JAKOB MEMORIAL AWARD

Presented to  
**YASUO MORI**  
at the

**26th National Heat Transfer  
Conference  
Philadelphia, PA**

**August 8, 1989**



## YASUO MORI

Yasuo Mori was born on February 24, 1923 in Tokyo City and has been a Tokyoite ever since. He received his M.S. in Aeronautical Engineering from the University of Tokyo in 1945. He entered the Physico-Chemical Research Institute which was one of the highest private research laboratories. Then he moved to the Department of Mechanical Engineering at the Tokyo Institute of Technology where he was appointed Associate Professor in 1953. He received his Dr. Eng. degree for a thesis entitled, "Theory of Turbo-expander for Low Pressure Air Separation Plants," from the University of Tokyo which made a basic contribution to the development of the plant producing oxygen at a low cost for steel industry in Japan. From 1959 to 1960, as a research fellow, he studied magnetohydrodynamics with Professor W. R. Sears at the Graduate School of Aeronautical Engineering, Cornell University. In 1961, he was named Full Professor at the Tokyo Institute of Technology. In 1968, he contributed greatly to the establishment of the Department of Physical Engineering at the Tokyo Institute of Technology, serving as the first chairman from 1968 to 1970 and several times since then. He was appointed as Adjunct Professor at the Institute of Industrial Science and the University of Tokyo, and Professor Emeritus of TIT in April, 1983. Then he carried on his education and research at the University of Electro-Communications as Professor at the Department of Mechanical Engineering from 1983 to 1988. He was invited to the University of California, Berkeley, as Springer Distinguished Professor in 1984. In 1986, he was elected as Foreign Associate of the National Academy of Engineering of the United States of America.



He has been a very active member of JSME. He has promoted the International Cooperation Program in the field of thermal engineering as Chairman of the JSME Board of International Affairs, Vice-Chairman of JSME, and President of the Heat Transfer Society of Japan. He is now Vice-President of the International Center for Heat and Mass Transfer. He has spared no efforts for the international heat transfer community as Editor of the International Journal of Heat and Mass Transfer from 1973 to 1986 and has served as a member of the advisory boards of several other international journals.

He has been consulted on heat transfer and energy problems as chairman or a member of national projects in Japan such as the MHD power generation, the high temperature helium loop and heat exchangers for nuclear steel making, binary cycle geothermal plant, and OTEC system which have been promoted by the Ministry of International Trade and Industry of Japan since 1964. Most of the over 270 papers authored and coauthored by him, appearing in journals or delivered at conferences, were related to the basic research in the general areas of heat transfer and energy conversion problems and backed up the above-mentioned projects. Consequently, his work is well known in the area of heat transfer of magnetohydrodynamics and combustion systems, high-temperature heat exchangers, heat transfer augmentation techniques, plasma and EHD heat transfer, condensation and evaporation mechanism, and forced convection under body forces. He was awarded four times, in 1963, 1973, 1980, and 1984, by the JSME for one of the best papers of the year. The 1982 Heat Transfer Memorial Award of the ASME was presented to him. In 1982 he won a commendation as distinguished scientist by Tokyo Metropolis. In 1988 the Luikov Award was conferred on him by the International Center for Heat and Mass Transfer.

## CITATION

The 1988 Max Jakob Memorial Award is conferred to Yasuo Mori for his pioneering research contributions in the general areas of heat transfer and energy conversion systems, and for his leadership service to the international heat transfer communities.

Chang-Lin Tien  
UCI Distinguished Professor  
University of California, Irvine

## PREVIOUS RECIPIENTS

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|--------------------------------------|-------------------------------------|
| 1961 Ernst R. G. Eckert, U.S.A.      | 1975 Robert G. Deissler, U.S.A.     |
| 1962 Llewellyn M. K. Boelter, U.S.A. | 1976 Ephraim M. Sparrow, U.S.A.     |
| 1963 William H. McAdams, U.S.A.      | 1977 D. Brian Spalding, U.K.        |
| 1964 Ernst Schmidt, Germany          | 1978 Niichi Nishiwaki, Japan        |
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| 1966 Sir Owen A. Saunders, U.K.      | 1980 Ralph A. Seban, U.S.A.         |
| 1967 Thomas B. Drew, U.S.A.          | 1981 Chang-Lin Tien, U.S.A.         |
| 1968 Shiro Nukiyama, Japan           | 1982 Simon Ostrach, U.S.A.          |
| 1969 S. S. Kutateladze, U.S.S.R.     | 1983 Bei Tse Chao, U.S.A.           |
| 1970 Warren M. Rohsenow, U.S.A.      | 1984 Alexander Louis London, U.S.A. |
| 1971 James W. Westwater, U.S.A.      | 1985 Frank Kreith, U.S.A.           |
| 1972 Karl A. Gardner, U.S.A.         | 1986 Raymond Viskanta, U.S.A.       |
| 1973 Ulrich Grigull, Germany         | 1987 S. George Bankoff, U.S.A.      |
| 1974 Peter Grassmann, Switzerland    |                                     |

## 1988 MAX JAKOB BOARD OF AWARD

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